Exhibit 300: Capital Asset Summary

Part I: Summary Information And Justification (All Capital Assets)

Section A: Overview & Summary Information

Date Investment First Submitted: 2009-06-30
Date of Last Change to Activities: 2012-08-16
Investment Auto Submission Date: 2012-02-29
Date of Last Investment Detail Update: 2012-02-29
Date of Last Exhibit 300A Update: 2012-02-29
Date of Last Revision: 2012-08-16

Agency: 006 - Department of Commerce **Bureau:** 48 - National Oceanic and Atmospheric Administration

Investment Part Code: 01

Investment Category: 00 - Agency Investments

1. Name of this Investment: NOAA/NWS/ Advanced Weather Interactive Processing System (AWIPS)

2. Unique Investment Identifier (UII): 006-000310100

Section B: Investment Detail

1. **Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.**

The Advanced Weather Interactive Processing System (AWIPS) is the cornerstone of a modernized National Weather Service (NWS). AWIPS hardware and software was deployed to Weather Forecast Offices (WFOs), River Forecast Centers (RFCs), and other NWS sites throughout the United States from 1996 to 1999. The system has been in its Operations and Maintenance phase of its lifecycle since 1999, and is critical to the National Weather Service's mission related to the preservation of life and property from severe weather and flooding events, and the enhancement of the national economy. AWIPS O&M funding is at approximately $39.0 million per year. AWIPS is in the O&M phase of its lifecycle, but contains a PAC funded Continuous Technology Refresh (CTR) product improvement plan that includes a project to restructure the AWIPS software into a Service Oriented Architecture (SOA). AWIPS PAC funds will be used to continue to infuse new science and technology into the AWIPS system. This technology infusion consists of separate projects that address three different areas of the AWIPS infrastructure: hardware, communications, and software. The hardware enhancements converted the original (dated) Hewlett-Packard Unix hardware to Linux based hardware to provide increased processing and mass storage capacity, and then continuously refresh the hardware on a cyclical basis; the communications enhancements increase satellite network bandwidth; and the software enhancement will re-engineer the AWIPS software suite into a standard Service Oriented Architecture making it

easier and less expensive to integrate improved science and algorithms into AWIPS, while reducing software O&M costs. This AWIPS Product Improvement (API) strategy is designed to increase system performance while reducing maintenance costs and processing latency. AWIPS collects, communicates, processes, displays, and analyzes hydro-meteorological data that is fundamental to the conduct of the NWS mission. Technology infusion is essential for the future of AWIPS. Technology infusion will allow AWIPS to accommodate the high volume, fine-scale data that are available from advanced satellite sensors (e.g., GOES-R, NPOESS), new radars (e.g., Dual Pol), and other ground based automated observing systems, and advanced numerical weather prediction models. It will enable improved weather warning and forecast services and provide critical support to the agency in meeting its GPRA goal.

2. **How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.**

This investment is in direct support of NOAA's Next Generation Strategic Plan. It specifically supports NOAA's Weather Ready Nation long-term goal to: 1 - reduce loss of life, property, and disruption from high-impact events; 2 - improve transportation efficiency and safety; and 3 - contribute to a more productive and efficient economy through environmental information relevant to key sectors of the US economy. AWIPS is the single most critical weather display and dissemination platform supporting NWS operations. AWIPS provides the forecaster with the ability to display obervations, radar, model, and satellite data necessary for producing the products and services for the American public and other Federal agencies. The current level of funding support the operations and maintenance performance requirements of the system, supports product improvements address emerging NWS mission critical requirements, and continue to support increasing information security requirements. Funding at a level less than the request amount increases the likelihood of hardward, communications, and software failures. These failures impact the NWS' ability to produce the products and service necessary for the American public and other Federal agencies, including those associated with high impact events.

3. **Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.**

Developed, tested, and deployed four software releases on schedule, including an operating system upgrade; Sustaining Engineering Projects: PowerVault Replacement; Server Refreshes; Satellite Broadcast Bandwidth Upgrade.

4. **Provide a list of planned accomplishments for current year (CY) and budget year (BY).**

Deployment of AWIPS II Migration Software.

5. **Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve**

this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.

2004-06-01

Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding

	PY-1 & Prior	PY 2011	CY 2012	BY 2013
Planning Costs:	$0.0	$0.0	$0.0	$0.0
DME (Excluding Planning) Costs:	$138.1	$21.6	$21.8	$21.0
DME (Including Planning) Govt. FTEs:	$22.7	$2.4	$2.3	$2.3
Sub-Total DME (Including Govt. FTE):	$160.8	$24.0	$24.1	$23.3
O & M Costs:	$314.3	$34.1	$34.0	$34.0
O & M Govt. FTEs:	$50.8	$5.2	$5.3	$5.3
Sub-Total O & M Costs (Including Govt. FTE):	$365.1	$39.3	$39.3	$39.3
Total Cost (Including Govt. FTE):	$525.9	$63.3	$63.4	$62.6
Total Govt. FTE costs:	$73.5	$7.6	$7.6	$7.6
# of FTE rep by costs:	441	49	49	49
Total change from prior year final President's Budget ($)		$63.4	$63.4	
Total change from prior year final President's Budget (%)		0.00%	0.00%	

2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:

N/A

Section D: Acquisition/Contract Strategy (All Capital Assets)

Table I.D.1 Contracts and Acquisition Strategy

Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value ($M)	Type	PBSA ?	Effective Date	Actual or Expected End Date
Awarded	1330	DG133W05CQ 1067									

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:
n/a

Exhibit 300B: Performance Measurement Report

Section A: General Information

Date of Last Change to Activities: 2012-08-16

Section B: Project Execution Data

Table II.B.1 Projects

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost ($M)
3101D06001	AWIPS II Migration	Migration of AWIPS capabilities to new software architecture.			
3101D07001	N-AWIPS Migration	Migrate National Centers AWIPS (NAWPS) functions to AWIPS II SOA.			
3101D08001	Collaboration	Real-time collaboration among NWS operators and between NWS operators and partners, e.g., Emergency Managers to support improved product consistency, quality and decision assistance.			
3101D08002	Data Delivery	Smart Push/Pull technologies to enable AWIPS to handle increased data volumes associated with major agency initiatives.			
3101D08003	Thin Client	Develop enterprise solution for remote access to AWIPS capabilities.			
3101D11001	Information Generation	Streamlined information generation dissemination and access for partners to support decision assistance.			

Table II.B.1 Projects

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost ($M)
3101D12002	Weather Event Simulator Integration	Integation of weather event simulator capabilities into SOA.			
3101M11001	AWIPS	All activities associated with support AWIPS O&M and Product Improvement.			

Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities ($M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance ($M)	Cost Variance (%)	Total Planned Cost ($M)	Count of Activities
3101D06001	AWIPS II Migration							
3101D07001	N-AWIPS Migration							
3101D08001	Collaboration							
3101D08002	Data Delivery							
3101D08003	Thin Client							
3101D11001	Information Generation							
3101D12002	Weather Event Simulator Integration							
3101M11001	AWIPS							

Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days)	Schedule Variance (%)
NONE								

Section C: Operational Data

Table II.C.1 Performance Metrics

Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Measurement Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency
GPRA Measurement:	Minutes	Mission and Business Results - Services for Citizens	Under target	12.000000	12.000000	14.000000	13.000000	Quarterly
Measurement of the time it takes for a text product to complete the communication circuit within AWIPS	Seconds	Process and Activities - Cycle Time and Timeliness	Under target	60.000000	60.000000	11.500000	20.000000	Monthly
The percentage of uptime for the Satellite Broadcast Netwark Master Ground Station	Percent	Technology - Reliability and Availability	Over target	99.950000	99.950000	99.990000	99.950000	Monthly
The percentage of time that the Satellite Broadcast Network is transmitting data	Percent	Technology - Reliability and Availability	Over target	99.950000	99.950000	99.950000	99.960000	Monthly
The percentage of uptime for the AWIPS Wide Area Network	Percent	Technology - Reliability and Availability	Over target	99.990000	99.990000	99.990000	99.990000	Monthly
The percentage of time that the Network Control Facility restores service based on a user ticket during critical weather. The APL is <4 minutes, 90% of the time;	Percent	Customer Results - Customer Benefit	Over target	95.000000	95.000000	100.000000	90.000000	Monthly
The percentage of time that the Network Control Facility restores service based on a user ticket during non-critical weather. The APL is <10 minutes 95% of	Percent	Customer Results - Customer Benefit	Over target	95.000000	95.000000	99.200000	95.000000	Monthly

Table II.C.1 Performance Metrics

Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Measurement Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency
the time								